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First Record of the Subfamily Megalopsidiinae Leng (Coleoptera, Staphylinidae) in Korea

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한국산 입치레딱부리반날개아과(딱정벌레목, 반날개과)의 보고

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ABSTRACT: The subfamily Megalopsidiinae Leng belonging to the family Staphylinidae is reported for the first time in Korea based on the discovery of *Megolopinus japonicus* (Nakane). The photographs of adult, aedeagus and male sternite IX are provided.

Key words: Coleoptera, Staphylinidae, Megalopsidiinae, *Megalopinus*, Korea

초 록: 반날개과(Staphylinidae)에 속하는 미기록아과인 입치레딱부리반날개아과(Megalopsidiinae)를 처음으로 소개하고, 그에 따른 입치레딱부리반날개(*Megalopinus japonicus* (Nakane))를 보고한다. 성충 사진, 수컷의 생식기 및 9번째 복판에 대한 사진을 제공한다.

검색어: 딱정벌레목, 반날개과, 입치레딱부리반날개아과, 입치레딱부리반날개속, 한국

The Megalopsidiinae Leng as a small subfamily of the family Staphylinidae consists of 332 species of only one genus worldwide and most of which are distributed in the tropical and subtropical regions (Naomi, 1986; Puthz, 2015). In East Asia, this subfamily has been recorded four species only in Japan so far (Naomi, 2013), but we introduce the subfamily for the first time in Korea. Most members of this subfamily occur mainly under rotting logs where fungi occur. Adults digest prey pre-orally, using a rotary-mill method for extracting liquefied tissues from masticated prey. A deeply bifurcate labrum bearing modified setae functions as a sieve, while hyaline processes on the labium may be used for tearing captured prey (Leschen and Newton, 2003).

In this paper, we report a species, *Megalopinus japonicus* (Nakane, 1957), for the first time in Korea with the illustrations of adult habitus, aedeagus and male sternite IX.

Materials and Methods

Last three abdominal segments of specimens were dissected from the body after softening in hot water. Aedeagus and dissected abdominal segments were mounted in Euparal on slides following the method described by Hanley and Ashe (2003). Photographs of sexual characters were taken with Ricoh GX100 camera attached to Nikon YS100 microscope; habitus photographs were taken using a Canon EOS 500D camera with a Canon macro photo lens MP-E 65 mm.

The measurements are as follows: body length – from the anterior margin of the clypeus to the posterior margin of abdominal

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tergite X; forebody length − from the anterior margin of the clypeus to the apico-lateral angle of elytra; head width − width of the head across the eyes; pronotum width − maximum width of the pronotum; elytra width − maximum width of elytra; pronotum length − length of the pronotum along the midline; elytra length − from the humeral angle to the apico-lateral angle.

The trap used to collect is abbreviated as follows: FIT − Flight intercept trap.

Taxonomic accounts

Subfamily Megalopsidiinae Leng, 1920 입치레딱부리반날개아과(신칭)

Megalopsidiini Leng, 1920: 98 (Type genus: *Megalopsidia* Leng, 1918) (see Newton and Thayer, 1992: 57).

Genus *Megalopinus* Eichelbaum, 1915 입치레딱부리반날개속(신칭)

Megalopinus Eichelbaum, 1915: 104 (Type species: *Oxyporus caelatus* Gravenhorst, 1802).

Diagnosis. Body size 1.8−5.0 mm. Head very large; mandible elongate and pointed at apex; eyes large, similar to those of subfamily Steninae; antennae inserted under antero-lateral borders, 11 segmented, last 3 antennomeres forming club shape; maxillary palpi 4 segmented. Pronotum with various impressions, lateral margin with acute projections. Elytra with irregular rows of punctures. Abdomen broad, paratergites III−VII apparently raised (Naomi, 1986).

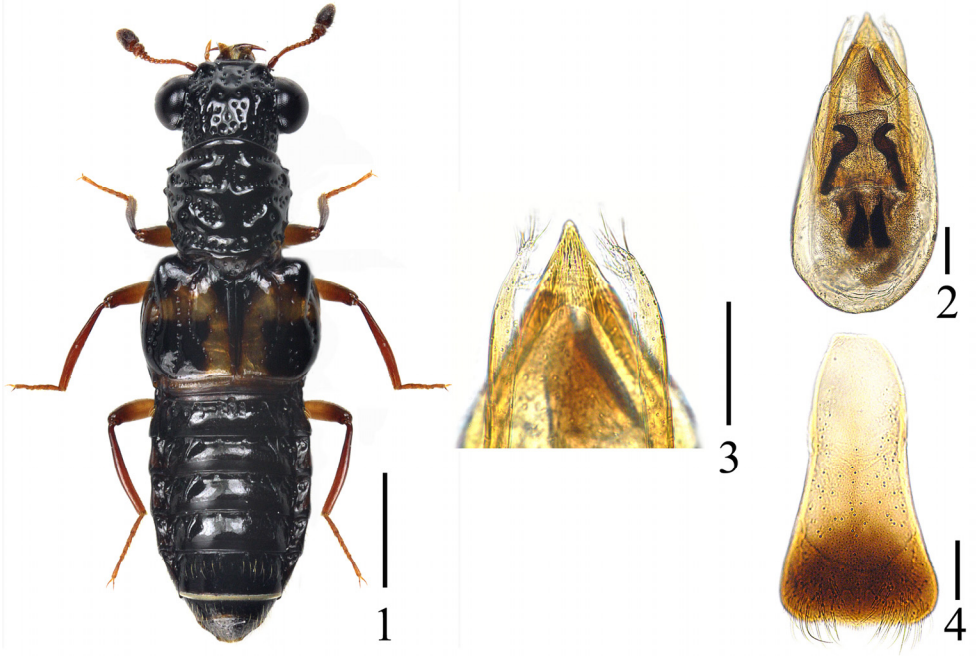
Distribution. Palaearctic, Nearctic, Neotropical Regions.

***Megalopinus japonicus* (Nakane) 입치레딱부리반날개(신칭) (Figs. 1−4)**

Megalopsidia japonica Nakane, 1957: 53 (TL: Japan).

Megalopinus japonicus: Naomi, 1986: 349.

Description. Body length 5.0−5.1 mm, forebody length 2.6−2.7 mm. Body (Fig. 1) black, antennae with antennomeres 1−9 dark brwon, 10−11 more darker, legs brown. Head narrower than elytra (0.76−0.86:1); interocular flat, anterior margin widely convex, with 2 setae near anterio-inner margin and 2 setae near posterio-inner margin of eyes, punctures irregular; eye very large. Pronotum wider than long (1.06−1.08:1), surface uneven, widest at anterior 2/5, lateral margin with acute 4 projections and short setae; dorsal surface with 4 subhorizontal punctured impressions, the 1st and 2nd connected by a median



Figs. 1−4. *Megalopinus japonicus*. 1. habitus, 2. aedeagus, 3. apical portion of aedeagus, 4. male sternite IX. Scale bar = 1 mm (1), Scale bars = 0.1 mm (2−4).

longitudinal impression, the 3rd divided in the middle. Elytra wider than long (1.31−1.44:1), almost oblong, surface uneven, each elytron with 4 irregular rows of punctures, with a reversed yellow L-shaped marking. Abdomen broad, tergites III−VII apparently with paratergites raised and V-shaped sculptures. Male sternite IX (Fig. 4) gradually wider toward posterior margin, posterior margin slightly emarginated and slightly projected at middle margin. Aedeagus (Figs. 2-3) with median lobe gradually narrowing toward apical portion and the tip triangularly pointed; parameres slender, almost extending at apex of median lobe, each with 8−12 setae at apico-internal area.

Specimens examined. Gangwon province. 1♂1♀, Yeonha valley, Yeonha-ri, Yeongwol-eup, Yeongwol-gun, 17. vii. - 19. viii. 2015, FIT. H.K. Min.

Distribution. Korea (new record), Japan (Honshu, Shikoku).

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